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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,171	04/11/2005	Kentaro Kawazoe	KOB-C556	4862

7590 12/21/2006  
GEORGE A. LOUD, ESQUIRE  
BACON & THOMAS  
625 SLATERS LANE, FOURTH FLOOR  
ALEXANDRIA, VA 22317-1176

EXAMINER
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FREISTEIN, ANDREW B

ART UNIT	PAPER NUMBER
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1626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/21/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/531,171

Applicant(s)

KAWAZOE, KENTARO

Examiner

Andrew B. Freistein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-5, 7 & 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/05/05</u> | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Claims 1-8 are pending.

#### *Priority*

This application is a 371 of PCT/JP03/13373, filed 10/20/2003.

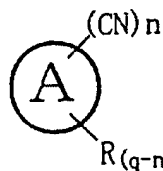
Acknowledgement is made of Applicant's claim for foreign priority under 35 U.S.C. § 119(a)-(d), by Japan patent application 2002305742 filed on 10/21/2002 and Japan patent application 2003276507, filed 07/18/2003.

#### *Information Disclosure Statement*

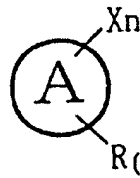
Applicant's information disclosure statement (IDS), filed on 05/05/2005, has been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

#### *Restriction Requirement*

In a response filed 10/19/2006, Applicant elected (with traverse) "A process for producing an aromatic nitrile compound represented by the general formula (3):



wherein ring A is a phenyl ring; n is an integer of 1 or 2; R is hydrogen or alkyl with the proviso that (q-n) is zero or a positive integer and when (q-n) is 2 or more, a plurality of Rs may be the same or different, the process comprising: reacting (A) an



aromatic compound represented by the general formula (1): wherein X is hydroxymethyl group, an alkoxymethyl group or a formyl group; n, R and q have the

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same definitions as given above, or a mixture thereof, with (B) an oxidized bromine compound represented by the general formula (2)  $MBrO_m$  wherein M is an alkali metal, and m is an integer of 1 to 3, in the presence of (C) an acid catalyst and (D) either ammonia or an ammonium salt as a nitrogen source."

Applicant traverses the restriction requirement asserting that the instant claims are the result of a "single general inventive concept" and should be treated differently than a grouping of novel compounds.

Examiner respectfully disagrees with applicant, because the instant claims are not drawn to a single general inventive concept, but rather to a broad generalization that any aromatic ring that has a cyano group as a substituent can be produced by the claimed process. Moreover, the variables vary extensively and when taken as a whole, create patentably distinct compounds, including reagents, starting materials and products. Therefore, the restriction requirement is proper and is maintained.

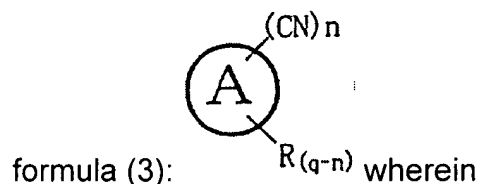
#### ***Status of the Claims***

Claims 1-5, 7 and 8 (in part) are withdrawn from further consideration by the Examiner as being drawn to non-elected inventions under 37 CFR § 1.142(b). The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search considerations. In addition, a reference that anticipates one invention would not render obvious the other invention.

Elected and Examined Subject Matter

The scope of the invention of the elected subject matter and the examined subject matter is as follows:

A process for producing an aromatic nitrile compound represented by the general



**ring A** is a phenyl ring;

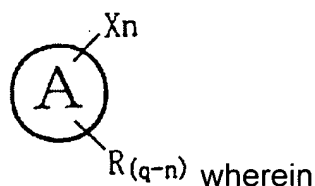
**n** is an integer of 1 or 2;

**R** is hydrogen or alkyl;

**(q-n)** is zero or a positive integer and when (q-n) is 2 or more, a plurality of Rs may be the same or different;

the process comprising:

reacting (A) an aromatic compound represented by the general formula (1):



**X** is hydroxymethyl group, an alkoxymethyl group or a formyl group;

**n** is an integer of 1 or 2;

**R** is hydrogen or alkyl;

**(q-n)** is 0-9 with the proviso that when (q-n) is 2-9, a plurality of Rs may be the same or different;

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with (B) an oxidized bromine compound represented by the general formula (2)

$MBrO_m$  wherein

**M** is an alkali metal;

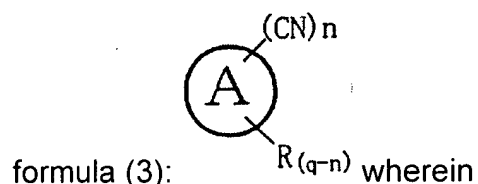
**m** is an integer of 1 to 3;

in the presence of (C) an acid catalyst and (D) either ammonia or an ammonium salt as a nitrogen source.

#### Non-elected and Non-examined Subject Matter

The scope of the invention of the non-elected and non-examined subject matter is as follows:

A process for producing an aromatic nitrile compound represented by the general



**ring A** is a an aromatic hetero-cycle having at least one heteroatom;

**n** is an integer of 3-9;

**R** is a hydroxyl group, alkoxy group, hydroxyalkyl group, alkoxyalkyl group, haloalkyl group, carboxyl group or metal salt thereof, alkoxycarbonyl group, halogen atom, nitro group, amino group, alkylamino group, dialkylamino group, alkylcarbonylamino group, cyano group, formyl group, alkylcarbonyl group, or substituted or unsubstituted phenyl group;

As a result of the election and the corresponding scope of the invention, identified supra, the remaining subject matter of Claims 1-5, 7 and 8 is withdrawn from

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further consideration pursuant to 37 CFR 1.142(b) as being drawn to non-elected inventions. The withdrawn claims are drawn to a process for preparing compounds, which contain varying functional groups such as pyridazine, pyrimidine, pyridine, pyran, pyrrolyl, imidazole, oxazole, thiazole, etc. which are chemically recognized to differ in structure, function, and reactivity.

Therefore, the subject matter which was withdrawn from consideration as being non-elected subject matter materially differs in structure and composition from the elected/examined subject matter so that a reference which anticipates the elected/examined subject matter would not render obvious the non-elected subject matter.

### ***Claim Objections***

Claims 1-5, 7 and 8 are objected to as being drawn to non-elected subject matter. The claims must be amended to reflect the restriction requirement Applicant and Examiner agreed upon.

### ***Telephone Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew B. Freistein whose telephone number is (571) 272-8515. The examiner can normally be reached Monday-Friday, 8:30 am - 5:00 pm.

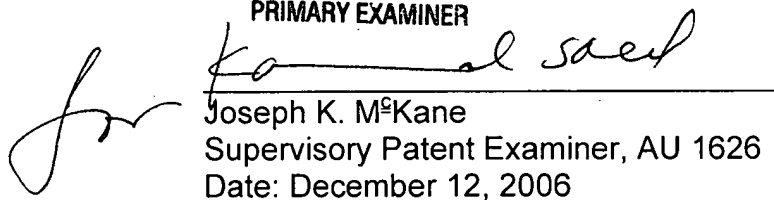
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph M<sup>rs</sup>Kane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Andrew B. Freistein  
Patent Examiner, AU 1626

KAMAL A. SAEED, PH.D.  
PRIMARY EXAMINER

  
Joseph K. McKane  
Supervisory Patent Examiner, AU 1626  
Date: December 12, 2006